

THE COWRIES (CYPRAEIDAE) OF FIJI

By THE REVEREND W. R. STEADMAN AND BERNARD C. COTTON, CONCHOLOGIST,
SOUTH AUSTRALIAN MUSEUM.

INTRODUCTION.

THE reefs and estuaries of the numerous islands in the Fiji Group constitute one of the most prolific fields for the study of Conchology. Some species of shells are rare, but in many places both reef and shore are teeming with various kinds of Mollusca and other marine life.

The Cowries here enumerated were collected by the Rev. and Mrs. W. R. Steadman during twenty-five years' residence in Fiji. A total of sixty-one species and subspecies are included in this list, of which two only were not found by the Steadmans, namely *Ovatipisa chinensis* Gmelin 1791 (= *crucata* Gmelin 1791 = *crenata* Bolton 1798 = *morbillosa* Bolton 1798 = *varialaria* Lamarek 1810) and *Cypraeovula adamsoni* Gray 1832.

Doctors F. A. and M. Schilder in their recent "Prodrome of a Monograph on Living Cypraeidae" (*Proc. Mal. Soc.*, 1939, xxiii, pt. iv, pp. 119-231) list several species from the Western Samoa = Fijian Region (p. 216) which have not been found by the Steadmans, and there are other species that have been taken by them in Fiji which do not appear in the Schilders' list for this locality.

Cowries listed by Schilders for Fiji-Samoan Region, but not taken by the authors:

Epona mariae Schilder (1927).
Ipsa childreni Gray (1825).
Naria irrotata Gray (1828).

Lyncina leviathan Schilder-Schilder (1937) giant *caracola*.
Cribraria goodalli fuscomaculata Pease (1865).
Cribraria tores subfasciata Link (1807) loc. Mauritius.

In preparing this account of Fijian Cowries we have given, with our identification, a full description of the shell, minimum and maximum adult size, and relative frequency of occurrence and locality. Some examples were taken by natives, and others were found on the beach after storms. In several cases the live animal was not observed, although many shells of the species were taken. In the case of *Callistocypraea aurantium turanga* subsp. nov., one example was seen with the animal in the shell; the specimen was taken by a native, and had been out of water for some time when examined. Being dead, only the general colour of the animal could be given. It is realized that a description of the animal is of great importance, and in every case possible fullest details are given. We are preparing figures of these shells, including animals where possible, for publication at a later date. Some will appear in the South Australian Naturalist, Vol. 22, No. 2, 1943.

The wide distribution of most cowries is explained by the fact that they have a comparatively long free-swimming larval-stage, resulting in the formation, in far-flung zoogeographical regions, of readily distinguishable subspecies. This is evident in the hitherto little studied Fijian Region, and thus a number of new names have been introduced here. Fijian names of local objects and places, with the approximate phonetic spelling, have been largely used by us as a basis for this new subspecific nomenclature. It must be noted that in Fijian words *b* is always pronounced *mb*, *c* as *th* in *that*, *d* as *nd*, *g* as *ng* in *sing*, and *q* as *ng* in *hunger*.

We have to acknowledge the ready and helpful assistance given by the late Mr. W. J. Kimber, of Adelaide, and Mr. Tom Iredale, Conchologist of the Australian Museum, Sydney.

FAMILY CYPRAEIDAE.

Subfamily NARIINAE.

The Schilders 1939 admitted four species, including *tessalata*, in *Pustularia*, but, as Iredale (1939) has pointed out, the latter represents a distinct genus, and is not admissible to the *cicercula* group. This leaves three species of *cicercula*, but Fijian shells reveal five distinct species, each of which has its uniform characteristics. We have separated *margarita* under the Subgenus *Annepona*, as it is nearer in form to *mariae*; we have accepted the names *bistrinotata sublaevis* and *globulus sphaeridium*, but have added *cicercula jennisoni* (subsp. nov.) and *tricornis vulavula* (subsp. nov.), retaining old names with subspecific Fijian names. Although the generic name indicates pustules, only one of the five species (*tricornis vulavula*) has a rough surface, and *bistrinotata sublaevis* has nearly obsolete granulations. Three of the species are quite smooth, and cannot be placed with granulated specimens, apart from the fact that there are also other distinct characteristics which appear in the detailed descriptions.

PUSTULARIA Swainson 1840.

Subgenus ANNEPONA Iredale 1935.

PUSTULARIA MARGARITA THEEVA subsp. nov.

Shell sub-globular, produced at extremities, anterior acuminate, posterior calloused; dorsum smooth, slightly humped, coloured pearly cream with faint white lacunae distributed sparsely; slight marginal ridge; inner wall of dorsum white; base white, convex, slight bulge at centre and turned upwards towards posterior outlet; aperture narrow, with slight turn to left at posterior outlet; outer lip declivous at anterior outlet; teeth fine, not produced across base, obscure in centre, heavier at extremities, heavy terminal ridge at anterior outlet; sulcus wide and shallow, fossula concave and denticulate. Animal not observed. Six specimens taken at Nadroga.

Habitat, inside main reef.

Length 12-14 mm., width 7-9 mm., height 6-7 mm.

Type in South Australian Museum, Reg. No. D.14137.

Teeth (holotype 14 mm. in length), Labial 30; Columella 24.

Loc. Kadavu, Suva, Levuka; six specimens taken at Nadroga (type loc.).

Named *theeva* from the Fijian word for pearl shell, adopted for this shell because of its pearly appearance.

Subgenus PUSTULARIA Swainson 1840.

PUSTULARIA CICERCULA JENNISONI subsp. nov.

Shell globular, light brown above and beneath, produced at extremities which are prominently acuminate, peculiar wart-like dorsal callosity above posterior outlet; dorsum smooth and humped, dark brown specks all over dorsum, faint at apex, more definite at sides, no dorsal line; inner wall of dorsum cream; base convex, turning upwards towards posterior outlet; aperture narrow, with slight turn to left at posterior outlet, raised ridge towards anterior outlet, outer anterior lip declivous; two widely spaced small brown blotches on each side of aperture; teeth fine and regular to half way across base; sulcus and fossula white, shallow, and denticulate. Animal not observed.

Habitat, inside main reef.

Length 13–20 mm., width 9–12 mm., height 6–10 mm.

Type in South Australian Museum, Reg. No. D.14138.

Teeth (holotype, 18 mm. in length), Labial 30; Columella 24.

Loc. Levuka, Beqa; twelve specimens taken at Suva, Taveuni (type loc.), and Naselai.

Named *jennisoni* after the Rev. J. C. Jennison, a missionary in Fiji for many years, who collected shells at Taveuni, and presented the holotype to the South Australian Museum.

PUSTULARIA BISTRINOTATA SUBLAEVIS Schilder 1939.

Shell globular, light brown above and beneath, produced at extremities which are acuminate, peculiar wart-like dorsal callosity above posterior outlet; dorsum humped, smooth across apex but with almost obsolete granules towards extremities, faint brown specks all over dorsum, lateral specks more definite, three pairs of blotches on either side of a faint dorsal line; inner wall of dorsum cream; base convex turning upwards towards posterior outlet; aperture narrow, slight turn to left at posterior outlet, outer anterior lip declivous, two widely spaced brown blotches on each side of aperture; teeth fine and regular to half way across base, but becoming shorter along posterior half of columella; sulcus and fossula wide, shallow, creamy, and denticulate. Animal not observed.

Habitat, inside main reef.

Length 13–18 mm., width 7–11 mm., height 6–10 mm.

Teeth (for specimen 18 mm. in length), Labial 30; Columella 24.

Loc. Fiji (type loc.), Kadavu, Taveuni; ten specimens taken at Suva and Nadroga.

PUSTULARIA TRICORNIS VULAVULA subsp. nov.

Shell globular, milky white in colour; extremities produced and acuminate, axis umbilicate; dorsum humped and finely granulated all over, dorsal groove along whole length; inner wall of dorsum white; base convex turning upwards towards posterior outlet; aperture narrow turning to left at posterior outlet, and having raised ridge towards anterior outlet, outer anterior lip slightly declivous; teeth fine and regular, produced right across base on both sides, but shorter towards posterior outlet; sulcus and fossula wide, concave, and denticulate. Animal not observed.

Habitat, inside main reef.

Length 13–18 mm., width 8–12 mm., height 6–10 mm.

Type in South Australian Museum, Reg. No. D.14139.

Teeth (holotype, 18 mm. in length), Labial 35; Columella 24.

Loc. Nadroga (type loc.), Kadavu, Taveuni; ten specimens taken at Nadroga and Suva.

Named *vulavula*, from the Fijian word for white.

PUSTULARIA GLOBULUS SPHAERIDIUM Schilder 1939.

Shell globular, extremely humped, coloured pearly cream with faint brown diffused spots sparsely distributed over dorsum, no dorsal line, axis umbilicate, extremities produced and acuminate; inner wall of dorsum cream; base convex, coloured ivory white turning upwards towards posterior outlet; aperture narrow, with sharp turn to left at posterior outlet, outer anterior lip slightly declivous; teeth becoming obsolete at centre, produced to about half way across base, four teeth towards posterior end of columella heavily formed; sulcus wide, fossula concave, both denticulate. Animal not observed.

Habitat, inside main reef.

Length 10-17 mm., width 7-10 mm., height 6-9 mm.

Teeth (for specimen 17 mm. in length), Labial 34; Columella 24.

Loc. Central Melanesia (type loc.), Levuka, Kadavu, Taveuni; eight specimens taken at Nadroga and Suva.

Subfamily STAPHYLAEINAE.

STAPHYLAEA Jousseaume 1884.

Subgenus STAPHYLAEA Jousseaume 1884.

STAPHYLEA CONSOBINA Garrett 1879.

Shell elongate ovate, dark grey inner wall of dorsum appearing faintly beneath a pearly white upper surface with white pustules small at apex and larger at sides of dorsum, grooved dorsal line towards right of apex; extremities rostrate, coloured brown and pitted; lateral pitted ridges, turning upwards at left centre; base white and convex, teeth brown, well formed, oblique towards extremities, several bifurcate at centre of columella; sulcus wide, fossula concave and denticulate. Animal dark red, further details not observed.

Habitat, inside main reef.

Length 18-30 mm., width 11-18 mm., height 9-14 mm.

Teeth (for specimen 27 mm. in length), Labial 20; Columella 19.

Loc. Central Pacific (type loc.), Levuka, Kadavu, Taveuni; twelve specimens taken at Suva and Nadroga.

STAPHYLEA NUKULAU sp. nov.

Shell ovate, smaller than *consobrina*, with similar colouring (some specimens, however, have brownish instead of greyish shade), numerous minute granules all over dorsum; dorsal line finely grooved; extremities and teeth brown; base convex, teeth conspicuous and produced evenly right across base to margins which are clearly defined and slightly ridged, teeth oblique at extremities, several columella teeth are bifurcate; aperture turns to left at posterior outlet; sulcus wide and shallow, fossula slightly concave, both strongly denticulate. Animal red, further details not observed.

Habitat, inside main reef.

Length 11-18 mm., width 7-12 mm., height 5-8 mm.

Type in South Australian Museum, Reg. No. D.14140.

Teeth (holotype, 18 mm. in length), Labial 19; Columella 17.

Loc. Nukulau (type loc.), Levuka, Kadavu; twenty specimens taken at Suva and Nadroga.

This species is distinct from *consobrina* in having uniformly minute granules all over dorsum instead of heavy pustules, and the teeth are conspicuously carried right across base to clearly defined margins instead of half way across. The name *nukulau* is taken from Nukulau Island near Suva, where numerous varieties of shells are found.

Subgenus PURPEROSA Iredale 1935.

STAPHYLEA PURPEROSA RUVAYA subsp. nov.

Shell ovate; dorsum light brown, with whitish lacunae of varying sizes all over, a scarcely perceptible dorsal groove on right side, dorsal surface smooth; ex-

tremities brown, rostrate and pitted; right margin ridged and pitted; inner wall of dorsum light violet; base convex, white, central base of columella raised above level of opposite side; teeth brown and conspicuous, very oblique towards posterior columella extremity, produced half way across base; sulcus and fossula shallow and denticulate. Animal red, further details not observed.

Habitat, inside main reef.

Length 12–21 mm., width 7–13 mm., height 6–10 mm.

Type in South Australian Museum, Reg. No. D.14141.

Teeth (holotype, 21 mm. in length), Labial 20; Columella 19.

Loc. Levuka, Kadavu; four specimens taken at Suva (type loc.), and Nadroga.

The Schilders (1939) use the name *limacina facifer*, but we have accepted Iredale's name, *purperosa*. This species has no "dorsal tubercles" as mentioned by the Schilders, page 129; the dorsal surface is quite smooth. One specimen taken by the Rev. W. O. North has a few lateral spots slightly pustulose. The word ruve, pronounced ruvay, is Fijian for dove. The name *ruvaya* is used to distinguish the Fijian from the Queensland *purperosa facifer*, mainly because the teeth are finer and produced somewhat further across the base.

Subgenus NUCLEARIA Jousseaume 1884.

NUCLEARIA NUCLEUS GEMMOSA Perry 1811.

Shell ovate with heavy rough cream coloured pustules all over a light grey dorsum, dorsal line grooved; base convex, extremities acuminate, base has upward turn at posterior extremity; aperture has sharp turn to left at posterior outlet; margins ridged and coloured darker shade, slightly bent up on right side; teeth conspicuous, light brown in colour, bifurcate along most of columella side, produced right across base and over margins to form striae on each side of dorsum; sulcus very shallow and denticulate, fossula shallow with prominent ridge on lower inner edge carried through outwards to left anterior extremity; inner wall of dorsum purple. Animal dark gray, further details not observed.

Habitat, inside main reef.

Length 15–26 mm., width 11–17 mm., height 8–12 mm.

Teeth (for specimen 26 mm. in length), Labial 26; Columella 18.

Loc. Central Pacific (type loc.), fairly general throughout Fiji; thirty specimens taken at Suva and Nadroga.

The Schilders (1939) in their description of this species state that the extremities are "short to blunt", but the Fijian specimens have well produced extremities, acuminate, perhaps inclined to an upwards rostrate tendency. We have, however, accepted the name as other characteristics apply.

Subfamily EROSARIINAE.

EROSARIA Troschel 1853.

Subgenus RAVITRONA Iredale 1930.

EROSARIA CAPUTSERPENTIS ARGENTATA Dautzenberg and Bouge 1933.

Shell ovate and depressed, with wide heavy chocolate brown margins, plain in colour half way to apex of dorsum, where the colouring breaks into a network of numerous irregular white lacunae, appearing through brown connecting threads, and sometimes gray zonal shadings showing through from below; white dorsal line crooked, often missing; inner wall of dorsum and extremities violet; light

patch above posterior extremity, anterior extremity somewhat attenuated; base depressed, shaded from dark at margins to cream at aperture; aperture turning left at posterior outlet; sulcus shallow, fossula narrow, concave, slightly denticulate; teeth not produced across base, inclined to be short and heavy, oblique towards posterior outlet. Animal has variegated dark brown mantle, with filaments in which red and brown appear, siphon and tentacles gray.

Habitat, among brown weeds in vermiculated grooves on outer edge of main reef where there are big breakers at high tide.

Length 20–36 mm., width 15–25 mm., height 9–16 mm.

Teeth (for specimen 36 mm. in length), Labial 16; Columella 14.

Loc. Central Pacific (type loc.), common throughout Fiji; numerous specimens taken at Suva and Nadroga.

Subgenus *EROSARIA* Troschel 1863.

EROSARIA EROSA CHLORIZANS Melville 1888.

Shell ovate; dorsum light brown with numerous gray lacunae often enclosed by brown rings irregularly placed, dorsal line gray on right side, sometimes missing; inner wall of dorsum light purple; margins heavily calloused and ridged, with brown spots; extremities heavily ridged, with brown lines above; large dark brown blotches above and beneath centre of margins; base depressed, cream; aperture wide, turns left at posterior outlet; sulcus and fossula shallow and denticulate; teeth heavy, produced well across base to right margin, but not on left, oblique towards posterior outlet. Animal gray, mantle yellowish gray with prominent delicate filaments shaded to dark brown, siphon light brown, tentacles darker brown.

Habitat, both on outer and shore reefs, usually larger specimens taken on outer reef.

Length 20–43 mm., width 13–27 mm., height 8–18 mm.

Teeth (for specimen 43 mm. in length), Labial 16; Columella 14.

Loc. Central Melanesia (type loc.), common throughout Fiji; numerous specimens taken at Suva and Nadroga.

EROSARIA PORARIA SCARABAEUS Bory 1827.

Shell ovate; dorsum light brown, with numerous white spots enclosed in violet-brown rings, dorsal line violet-gray, often missing; margins violet, slightly ridged and pitted towards extremities; base slightly convex, shaded from violet at margins to white at aperture; aperture turns left at posterior outlet; inner wall of dorsum deep violet; sulcus shallow, fossula concave and denticulate; teeth white, finely chiselled on both sides of aperture, produced half way across base on right side, but shorter on left, oblique towards posterior outlet. Animal red, mantle gray, filaments white and gray.

Habitat, inside main reef.

Length 15–21 mm., width 10–15 mm., height 5–9 mm.

Teeth (for specimen 21 mm. in length), Labial 16; Columella 14.

Loc. Central Pacific (type loc.), Kadavu, Levuka, Taveuni; twenty specimens taken at Suva and Nadroga.

EROSARIA HELVOLA CALLISTA Shaw 1909.

Shell ovate, depressed, with wide heavy plain brown margins shaded to darkest half way to apex of dorsum, where the plain colouring breaks into a network of

minute closely packed white lacunae on a bluey gray surface, and many irregularly placed brown spots superimposed upon this network, no perceptible dorsal line; base depressed, brown in colour; extremities shaded violet on upper side; teeth heavy, produced to margin on right side, short especially at centre on left side, oblique towards extremities; inner wall of dorsum violet; sulcus and fossula narrow, the latter slightly denticulate. Animal orange, mantle mottled with lighter shaded filaments, siphon and tentacles shaded yellow to red.

Habitat, inside main reef.

Length 12–20 mm., width 8–14 mm., height 6–9 mm.

Teeth (for specimen 20 mm. in length), Labial 15; Columella 15.

Loc. Polynesia (type loc.), common throughout Fiji; thirty specimens taken at Suva and Nadroga.

EROSARIA HELENAE NASESE subsp. nov.

Shell elongate ovate; dorsum brownish gray, with numerous tiny whitish gray spots all over dorsal surface, dorsal line indicated by gray shadowy break in pattern; inner wall of dorsum purple; both margins ridged, with dark brown spots on upper side; extremities rostrate, anterior especially prominent, with brown markings above; base convex, white in colour; aperture constricted at labial anterior extremity, turning slightly to left at posterior outlet; teeth produced to margin on right side, but short on left, oblique towards columella posterior outlet; fossula shallow and denticulate; prominent terminal ridge at anterior columella extremity. Animal not observed.

Habitat, inside main reef.

Length 14–16 mm., width 8–10 mm., height 6–7 mm.

Type in South Australian Museum, Reg. No. D.14142.

Teeth, (holotype, 14 mm. in length), Labial 14; Columella 14.

Loc. Three specimens taken at Suva (type loc.); probably occurs at other localities, but not observed.

Schilders (1939) reject *flavcola* Gray 1825, and use the name *labrolineata* Gaskoin 1848. Iredale (1939) rejects *labrolineata*, regarding it as a synonym for *helenae* Roberts 1869. We have adopted *helenae*, and added *nasese* to distinguish the Fijian specimen. *Nasese* is the name of a suburb of Suva, where there is a coastal reef with a fine lot of shells.

EROSARIA EBURNEA Barnes 1828.

Shell ovate, pearly white both above and beneath; inner wall of dorsum light brown; anterior extremity has conspicuous pitted ridge, posterior extremity slightly produced on right side; base convex; aperture wide, slightly constricted on labial anterior end, turning left at posterior end; no sulcus, fossula shallow and narrow, prominent terminal ridge at left anterior extremity; obsolete ridge along right margin; teeth large, not produced across base, oblique towards posterior columella outlet. Young shells have a bluish shading appearing beneath the pearly white covering of the dorsum, but as shell matures and dorsum thickens this dark undershade disappears. Animal brownish gray, mantle gray with tiny filaments edged with light brown, fringed siphon and tentacles brown.

Habitat, in sand around shore rocks between tides.

Length 27–50 mm., width 17–30 mm., height 12–23 mm.

Teeth (for specimen 50 mm. in length), Labial 18; Columella 15.

Loc. Fiji (type loc.), Nadi, Nadroga, Kadavu; thirty specimens taken at Tavua and Suva.

MONETARIA Troschel 1863.

Subgenus ORNAMENTARIA Schilder-Schilder 1936.

MONETARIA ANNULUS NOUMEEENSIS Bernardi 1861.

Shell pyriform; dorsum slightly humped, sloped equally at sides, pearly gray at margins, and half way to apex darker greeny grey with erratic orange line, lighter bluish gray around apex within the orange line; inner wall of dorsum purple; base depressed, pearly gray in colour; aperture wide, somewhat constricted at labial anterior extremity, slight turn to left at posterior outlet; sulcus and fossula obsolete; teeth not produced across base, oblique towards posterior outlet on columella side. Animal dark gray, mantle dark green, flecked with black and white patches, filaments light coloured with pink shadings, siphon gray with pink fringe, tentacles pink.

Habitat, among small rocks and broken coral on shore reefs, where it is taken in great numbers, also on outer reefs where surface is left bare by receding tide.

Length 13-25 mm., width 8-16 mm., height 7-14 mm.

Teeth (for specimen 25 mm. in length), Labial 12; Columella 11.

Loc. New Caledonia (type loc.), very common throughout Fiji; numerous specimens taken at Suva and Nadroga.

MONETARIA ANNULUS DRANGA Iredale 1939.

This species differs from *noumeensis* in being proportionately wider, dorsum depressed instead of slightly humped, calloused at margins, with slight torus, revealing a tendency towards *obelata*; teeth further produced across columella base; aperture has greater turn to left at posterior outlet, both lips raised in centre. No apparent differences observed in the animal from that of *noumeensis*.

Habitat, usually found near *noumeensis* in similar conditions.

Length 16-23 mm., width 13-19 mm., height 9-12 mm.

Teeth (for specimen 23 mm. in length), Labial 12; Columella 10.

Loc. Samoa (type loc.), common throughout Fiji; numerous specimens taken at Suva and Nadroga.

Whilst there are numerous true specimens of both *noumeensis* and *dranga*, showing clearly the distinct features described above, there are also a great number of intermediate specimens tending either towards one or the other. In view of this we would venture the suggestion that there are two tribes, but quite a lot of cross breeding.

Subgenus MONETARIA Troschel 1863.

The Schilders (1939) list *moneta barthelemyi*, locality, Central Pacific, as from the Fiji region, but this name applies to a New Caledonian aberration, as pointed out by Iredale (1939) and cannot be used for the Fijian specimens. There are three distinct species of *moneta* in Fiji easily identified by (1) slightly humped dorsum, equally sloped sides, cream base, (2) depressed dorsum, heavy tubercles, cream base, (3) slightly humped dorsum, milky white margins and base. We have given these three species subsp. names of *endua*, *erua*, and *etolu*, Fijian words for one, two and three. At the same time, whilst there are numerous true specimens showing clearly the distinct features described above, as in the case of *annulus*, there are many intermediate specimens tending either towards one or the other. The suggestion may again be made that there are probably three distinct kindred tribes, but also an amount of cross breeding.

MONETARIA MONETA ENDUA, subsp. nov.

Shell pyriform, heavily calloused at margins and extremities; dorsum slightly humped, colour deep cream, with greenish under shading across upper half of dorsum, and darker zonal bands. Some specimens are bright canary yellow, and others again have faint orange lateral lines similar to *annulus*; inner wall of dorsum purple; base depressed, shaded deep cream at margins to ivory white at aperture; aperture wide, constricted at anterior outlet, turns slightly to left at posterior outlet; teeth large, not produced across base, becoming obsolete towards posterior end of columella; sulcus and fossula missing; columella base raised in centre above level of opposite side. Animal gray, mantle mottled gray and yellow, filaments small, shaded cream and purple, siphon gray, fringed, tentacles gray touched with yellow.

Habitat, both *annulus* and the three species of *moneta* are usually found in proximity, congregated in colonies among small rocks and broken coral on shore reefs, and also found in less numbers on outer reefs.

Length 15–33 mm., width 9–22 mm., height 8–17 mm.

Type in South Australian Museum, Reg. No. D.14143.

Teeth (holotype, 30 mm. in length), Labial 14; Columella 13.

Loc. Common throughout Fiji; numerous specimens taken at Suva (type loc.) and Nadroga.

MONETARIA MONETA ERUA subsp. nov.

Shell broader than *moneta endua*, dorsum somewhat depressed, margins and extremities heavily calloused with coarse tubercles especially towards posterior extremity; dorsal colouring deep cream to bright canary yellow, some specimens having greenish shading on upper half of dorsal surface, and dark zonal bands, some have also the orange lateral lines similar to *annulus*; inner wall of dorsum purple; base depressed, deeper cream on under margins, shaded to ivory white at aperture; aperture rather less wide than in *endua*, scarcely any turn to left at posterior outlet; teeth heavy with tendency to become tuberculose, not produced across base; sulcus and fossula obsolete. Animal similar to that of *endua*.

Habitat, similar to that of *endua*.

Length 18–28 mm., width 13–22 mm., height 9–15 mm.

Type in South Australian Museum, Reg. No. D.14144.

Teeth (holotype, 28 mm. in length), Labial 12; Columella 12.

Loc. Common throughout Fiji; numerous specimens taken at Suva (type loc.) and Nadroga.

MONETARIA MONETA ETOLU subsp. nov.

Shell pyriform, dorsum slightly humped and shaded creamy gray over upper half, with three dark greenish zonal bands; margins, extremities, and base milky white; inner wall of dorsum purple; base depressed; aperture wide, almost straight, wider at anterior outlet; teeth large, not produced across base; sulcus and fossula obsolete. Animal similar to that of *endua* and *erua*.

Habitat similar to that of *endua* and *erua*.

Length 17–23 mm., width 14–17 mm., height 10–13 mm.

Type in South Australian Museum, Reg. No. D.14145.

Teeth (holotype, 23 mm. in length), Labial 14, Columella 14.

Loc. Common throughout Fiji; numerous specimens taken at Suva (type loc.) and Nadroga.

Subfamily ERRONEINAE.

CRIBRARIA Troschel 1863.

CRIBRARIA CRIBRARIA NORTHI subsp. nov.

Shell pyriform-elongate; dorsum has white spots on brown surface making a somewhat sieve-like appearance (whence the specific name); margins, extremities and base white, right margin and extremities ridged; abrupt change in dorsal pattern to a much lighter shade along a line about 2 mm. from right lateral edge; inner wall of dorsum white; base convex; teeth heavier and produced across base on labial side, more numerous and finer on columella side; sulcus wide, fossula slightly concave, both denticulate; aperture turns left towards posterior outlet. Animal not observed.

Habitat, inside main reef.

Length 19–31 mm., width 12–18 mm., height 9–14 mm.

Type in South Australian Museum, Reg. No. D.14146.

Teeth (holotype, 28 mm. in length), Labial 17; Columella 21.

Loc. Beqa, Kadavu, Levuka, Taveuni; twenty specimens taken at Suva and Nadroga (type loc.).

The Schilders (1939) list *cribraria melwardi* Iredale (1930), from the Fiji region, but as Iredale (1939) points out, *melwardi* is "a shining stout white shell" quite distinct from the typical *cribraria*. For the Fijian specimens we have given the subspecific name of *northi* after the Rev. W. O. North, who was for many years a missionary in Fiji, and who took specimens of this shell near his home at Nadroga.

BISTOLIDA Iredale 1939.

BISTOLIDA STOLIDA THAKAU subsp. nov.

Shell elongate; extremities produced; apex depressed, light gray along length of dorsum, with irregular shaped large light brown macula in centre, and erratic lateral light brown lines from sides of macula to extremities; margins ivory white, with two yellow transverse markings on each side; inner wall of dorsum white; slight marginal ridge on right side; base white, convex; aperture has very slight turn to left at posterior outlet; sulcus wide and shallow, fossula slightly concave and denticulate; teeth produced half way across base. Animal not observed.

Habitat, inside main reef.

Length 26 mm., width 15 mm., height 11 mm.

Type in South Australian Museum, Reg. No. D.14147.

Teeth (holotype, 26 mm. in length), Labial 19; Columella 20.

Loc. Nadroga, Kadavu; one specimen taken at Suva (type loc.).

The Fijian specimen has extremities more attenuated than specimens from regions further west. The subspecific name of *thakau*, Fijian for reef, has been given to distinguish the Fijian specimen.

BISTOLIDA FLUCTUANS NANDRONGA subsp. nov.

Shell elongate, extremities produced; apex depressed; dorsum light pinkish gray, with dark brown macula in centre, but no lateral lines, minutest light brown specks along margins; marginal ridge on right side, with small light brown marks along both margins, axis umbilicate; inner wall of dorsum light brown; base depressed; aperture wide, with turn to left at posterior outlet; teeth produced across

narrow labial side of base, but only half way across left side; no sulcus, fossula narrow and slightly concave, denticulate within. Animal not observed.

Habitat, inside main reef.

Length 25 mm., width 14 mm., height 12 mm.

Type in South Australian Museum, Reg. No. D.14148.

Teeth (holotype, 25 mm. in length), Labial 15; Columella 16.

Loc. One specimen taken at Nadroga (type loc.); other localities not known but probable.

Iredale (1935) introduced the name *fluctuans* for specimens of a similar shell from North Australia. The Fijian specimen is more elongate than the North Australian, and has finer teeth; it has also a brown blotch on the apex of the dorsum. We have, therefore, given this shell the subspecific name of *nandroga* (spelt Nadroga in Fijian) from the name of a district in Fiji, where a great variety of shells is found.

TALOSTOLIDA Iredale 1931.

TALOSTOLIDA SUBTERES VAVA subsp. nov.

Shell sub-cylindrical; dorsum depressed, greenish gray, with numerous more or less agglomerate tiny brown specks, and erratic brown markings, arranged somewhat irregularly in a series of zonal lines; calloused extremities produced; calloused labial margin ridged, with dark brown spots; inner wall of dorsum purple; base convex, white; aperture rather narrow, slight turn to left at posterior outlet; sulcus and concave fossula denticulate, strong acuminate ridge at left side of anterior outlet; teeth produced half way across base on right side, but not on left. Animal not observed.

Habitat, inside main reef.

Length 23–27 mm., width 14–16 mm., height 11–13 mm.

Type in South Australian Museum, Reg. No. D.14149.

Teeth (holotype, 27 mm. in length), Labial 23; Columella 24.

Loc. Beqa, Kadavu; ten specimens taken at Suva (type loc.) and Nadroga.

The Schilders (1939) list *teres subfasciata* Link (1807) from the Fijian region, but Iredale (1939) states that this subspecies came from Mauritius, and the name is, therefore, not applicable to the Pacific subspecies. The Fijian specimens seem to belong to the *subteres* species, and we have added the subspecific name of *vava*, Fijian for a shoe.

PAULONARIA Iredale 1930.

PAULONARIA MINORIDENS SUVAENSIS subsp. nov.

Shell cylindrical and fragile; dorsum biscuit coloured, with three fulvous zonal markings, of which that across the apex comprises a series of short curved stripes, the whole of the dorsal surface is covered with minutest fulvous specks; extremities tinged with a bright fuchsia colouring, which is continued well within the anterior outlet; inner wall of dorsum buff coloured; base white on the narrow labial side, buff dorsal shading continued over left margin and across columella side of base; aperture wider at anterior outlet; no turn left at posterior outlet; fossula slightly concave and denticulate; teeth fine, obsolete on most of columella centre. Animal gray, mantle bright red, with minutest filaments of same colour, siphon gray and pink, tentacles shaded red.

Habitat, on rocks inside main reef.

Length 9–12 mm., width 5–6 mm., height 3–4 mm.

Type in South Australian Museum, Reg. No. D.14150.

Teeth (holotype, 10 mm. in length), Labial 15; Columella 15.

Loc. Eight specimens taken at Suva (type loc.); probably occurs at other localities but not observed.

The names *fimbriata*, *minoridens*, and *microdon* seem to have been somewhat confused, and *minoridens* has been called both *fimbriata* and *microdon*. We have adopted the name *minoridens*, adding the subspecific name of *suvaensis*, from the town of Suva, and *microdon* is used below for a pyriform species with finer teeth.

PAULONARIA MICRODON GRANUM Schilder 1938.

Shell subpyriform; dorsum slightly inflated; extremities rostrate; base white, convex; aperture narrow, slight turn left at posterior outlet; teeth very fine, not produced across base; sulcus wide and shallow, fossula concave and slight denticulate. Animal not observed.

Habitat, the one specimen taken is from the beach, and dorsal markings are eroded.

Length 9 mm., width 5 mm., height 4 mm.

Teeth, Labial 15; Columella 15.

Loc. Fiji (type loc.). One specimen taken at Nadroga; other localities not known.

EVANARIA Iredale 1930.

EVANARIA ASELLUS KAWAKAWA subsp. nov.

Shell elongate pyriform; dorsum has three broad chocolate (or in some cases black) bands transversely placed over a white surface, and continued obscurely across columella within aperture; margins, extremities, and base white, right margin slightly ridged; inner wall of dorsum white; axis depressed; aperture has very slight turn left at posterior outlet; teeth fine, produced half way across base, columella teeth inclined to be tuberculose towards posterior outlet; sulcus wide and shallow, fossula concave and denticulate. Animal black, mantle, miniature processes, siphon and tentacles black, the latter with red tips.

Habitat, on rocks inside main reef.

Length 11-21 mm., width 6-11 mm., height 5-9 mm.

Type in South Australian Museum, Reg. No. D.14151.

Teeth (holotype, 14 mm. in length), Labial 16; Columella 14.

Loc. Levuka, Kadavu, Taveuni; twelve specimens taken at Suva (type loc.) and Nadroga.

The Schilders list *asellus bitaeniata* Geret (1903) for the Pacific region, but Iredale (1939) points out that Geret's name was given to a freak colouration with two bands instead of three. We have given the subspecific name of *kawakawa*, Fijian for a bridge, to distinguish the Fijian shell.

EVANARIA HIRUNDO KOROLEVU subsp. nov.

Shell pyriform, rather plump in appearance; two irregular white zonal markings across light brown coloured dorsum; apex of dorsum depressed, falling away quickly to posterior, and more obliquely to anterior extremity; axis depressed, brown specks distributed sparsely over dorsum and on margins; right margin slightly ridged; extremities white and rostrate, brown spots on both upper sides; inner wall of dorsum purple; base convex, creamy white; aperture turns left at posterior outlet; teeth produced across most of base, bifurcate at columella centre; sulcus and fossula wide, shallow and denticulate. Animal not observed.

Habitat, inside main reef.

Length 13–32 mm., width 8–14 mm., height 7–10 mm.

Type in South Australian Museum, Reg. No. D.14152.

Teeth (holotype, 16 mm. in length), Labial 18; Columella 18.

Loc. Korolevu (type loc.), Beqa, Kadavu, Taveuni; thirty specimens taken from Suva and Nadroga.

The Schilders have used *hirundo rouri* Aneey (1882) for Melanesian types of this species, but their descriptions do not agree with the Fijian specimens. We have, therefore, introduced a new subspecific name of *korolevu*, from a town on the south coast of the island of Viti Levu, where many of these shells are taken.

EVANARIA URSELLUS VITIENSIS subsp. nov.

Shell subcylindrical, with two erratic whitish zonal markings across dorsum, leaving a curious pattern of gray markings, the whole dorsal surface being covered with a filmy pearly cream coating; minute brown specks sparsely distributed over dorsum; extremities rostrate, white, with two dark brown spots on upper side at each end; right margin very slightly ridged with brown specks; base convex, white; aperture slight turn left towards posterior outlet; inner wall of dorsum shows brown outer pattern; teeth produced across base; sulcus shallow, fossula econcave and denticulate. Animal not observed.

Habitat, inside main reef.

Length 10–16 mm., width 5–9 mm., height 4–7 mm.

Type in South Australian Museum, Reg. No. D.14153.

Teeth (holotype, 14 mm. in length), Labial 16; Columella 16.

Loc. Beqa, Kadavu, Taveuni; twenty specimens taken at Suva (type loc.) and Nadroga.

Various names have been used for this species, the Schilders using *kleineri*, but we have followed Iredale in using *ursellus*, and have added the subspecific name of *vitiensis*, i.e. "Fijian". The native spelling of Fiji is Viti.

EVANARIA PUNCTATA TRIZONATA Sowerby 1870.

Shell elongate pyriform; dorsum ivory white, with brown specks sparsely and irregularly placed, axis depressed towards left; extremities rostrate; slightly larger spots along both margins; base cream, slightly depressed; inner wall of dorsum white; aperture slight turn left towards posterior outlet; teeth produced half way across narrow labial side of base, not across columella side; sulcus and fossula shallow and denticulate. Animal not observed.

Habitat, on inner reefs.

Length 8–15 mm., width 5–9 mm., height 4–7 mm.

Teeth (for specimen 15 mm. in length), Labial 15; Columella 16.

Loc. Polynesia (type loc.); twelve specimens taken at Suva and Nadroga, other localities not known but probable.

PALMADUSTA Iredale 1930.

PALMADUSTA CLANDESTINA CANDIDA Pease 1865.

Shell pyriform, dorsum white, with three large obscure very light brown erratic shaped zonal markings, and a number of faint light brown zigzag gossamer lines stretched across; inner wall of dorsum white, but showing faintly the zonal shadings above; margins and extremities pearly white; base convex, white; aperture turns left at posterior outlet; sulcus and fossula shallow, slightly denticulate; teeth produced half way across base. Animal not observed.

Habitat, inside main reef.

Length 10-16 mm., width 5-10 mm., height 4-8 mm.

Teeth (for specimen 16 mm. in length), Labial 20, Columella 18.

Loc. Central Pacific (type loc.), Suva, Beqa, Kadavu; two specimens taken at Nadroga.

PALMADUSTA LUTEA YALOKA subsp. nov.

Shell pyriform; dorsum covered with scattered brown spots upon whitish zonal bands separated by light brown, the central white band narrow; the brown spots are continued over the base, which is convex, and has a yellowish shading; inner wall of dorsum light brown; aperture turns left at posterior outlet; teeth not produced across base, white teeth on labial side; columella white within; fossula slightly concave. Animal not observed.

Length 19 mm., width 12 mm., height 10 mm.

Type in South Australian Museum, Reg. No. D.14154.

Loc. Nadroga (type loc., specimen taken by Rev. W. O. North); another specimen was taken there by Steadman.

The Schilders list *lutea humphreysii* Gray (1825) for a wide area from South Melanesia and Sydney to Tonga in the Central Pacific, but the Fijian specimens do not agree with the descriptions given, and we have introduced a new subspecific name of *yaloka*, Fijian for bird's egg, for the Fijian shell.

SOLVADUSTA Iredale 1935.

SOLVADUSTA SUBVIRIDIS KESATA subsp. nov.

Shell pyriform; dorsum gray, with large brown macula on apex, and smaller maculae on sides; margins extremities and base white, anterior extremity and posterior labial extremity produced; aperture wide, especially at anterior end; inner wall of dorsum purple; teeth not produced across base, and very lightly formed on posterior end of columella; fossula small, concave, and denticulate; columella raised above opposite side of aperture. Animal not observed.

Habitat, inside main reef.

Length 28 mm., width 17 mm., height 16 mm.

Type in South Australian Museum, Reg. No. D.14155.

Teeth (holotype, 28 mm. in length), Labial 17; Columella 19.

Loc. One specimen taken at Suva (type loc.); other localities not known.

S. subviridis has been listed from Australia and Melanesia, and Fiji can now be added, although only one specimen has been taken by Steadman, and we have seen no other specimen from Fiji. The name *kesata*, Fijian for stained, has been given to denote the Fijian subspecies.

MELICERONA Iredale 1930.

MELICERONA MELVILLI VATU subsp. nov.

Shell sub-cylindrical; dorsum has four more or less broken black zonal bands, and a yellow patch behind the anterior band, otherwise the shading is greenish gray between bands, with numerous brown specks all over; several large black-brown spots at margins, and black-brown markings on upper side of extremities; inner wall of dorsum gray; base pearly cream, but the four black zonal bands are continued obscurely across left side to within columella; aperture fairly wide; teeth fine, not produced across base, but four of them are prominent across shallow

fossula, and small along rest of columella side. Animal dark gray, mantle mottled dark brown with minute filaments of same colour, siphon brown, tentacles gray.

Habitat, inside main reef.

Length 13–22 mm., width 7–12 mm., height 4–7 mm.

Type in South Australian Museum, Reg. No. D.14156.

Teeth (holotype, 22 mm. in length), Labial 14; Columella 14.

Loc. Beqa, Kadavu, Levuka; thirty specimens taken at Suva (type loc.) and Nadroga.

The Schilders list *felina melvilli* Hidalgo (1906), from a wide region stretching from Samoa to the Western Pacific. Iredale (1939) designates Amboina as the type locality for *melvilli*, and proposes *melvilli vesesia* for shells from the East Australian coast. The Fijian specimens appear more elongate than the *melvilli vesesia* illustrated by Iredale, and we have thus given the name *melvilli vatu* for the Fijian shells; *vatu* is the Fijian word for a stone.

BLASICRURA Iredale 1930.

BLASICRURA RHINOCEROS VIVIA subsp. nov.

Shell cylindrical; dorsum greenish gray, with numerous light brown specks, and four faint dark brown zonal markings; margins and base cream with a few small brown spots; inner wall of dorsum purple; aperture almost straight; teeth produced half way across base; sulcus wide and shallow becoming denticulate towards fossula, which is shallow and heavily denticulate. Animal not observed.

Habitat, inside main reef.

Length 15–24 mm., width 8–13 mm., height 6–10 mm.

Type in South Australian Museum, Reg. No. D.14157.

Teeth (holotype, 18 mm. in length), Labial 20; Columella 19.

Loc. Numerous specimens taken at Suva (type loc.) and Nadroga; other known localities fairly common throughout Fiji.

The Schilders (1939) list *pallidula rhinoceros* from Western to Central Pacific, but the Fijian shell seems more elongate than the Melanesian, and the zonal lines more distinct. We have, therefore, distinguished the Fijian shell with the name *rhinoceros vivia*, the word *vivia* being Fijian for rolled round or banded.

BLASICRURA QUADRIMACULATA GARRETTI Schilder 1939.

Shell elongate; dorsum gray, with numerous light brown specks, and speckled light brown dorsal line, two large very dark brown spots at each extremity, one of these spots on axis, which is sunken; inner wall of dorsum wine coloured; margins, extremities, and base ivory white; anterior extremity extended to give slender appearance; aperture almost straight; teeth produced half way across base, at posterior end of columella inclined to be tuberculose; fossula slightly concave and denticulate. Animal not observed.

Habitat, inside main reef.

Length 13–21 mm., width 7–11 mm., height 6–9 mm.

Teeth (for specimen 21 mm. in length), Labial 17; Columella 17.

Loc. Fiji (type loc.); two specimens taken at Suva.

PALANGEROSA Iredale 1930.

PALANGEROSA CYLINDRICA WANGGA subsp. nov.

Shell cylindrical; dorsum has gray shading with numerous light brown specks all over, and darker brown patch near apex; anterior extremity greatly produced

and rostrate, with pronounced ridge carried back to margins, posterior extremity less produced, axis depressed, dark brown markings on both upper sides of extremities; inner wall of dorsum purple; base convex, pearly white; aperture wide and constricted towards anterior outlet, slight turn left at posterior outlet, teeth thin and widely spaced extending across inner side of columella, but not across base. Animal not observed.

Habitat, on inner reefs.

Length 29–32 mm., width 15–16 mm., height 11–12 mm.

Type in South Australian Museum, Reg. No. D.14158.

Teeth (holotype, 30 mm. in length), Labial 17; Columella 19.

Loc. Three specimens taken at Suva (type loc.).

Iredale (1939) gives the type locality of *cylindrica* as Amboina, and we have added the subspecific name *wangga*, Fijian for boat, to distinguish the Fijian species.

ERRONEA Troschel 1863.

ERRONEA NIMISSERANS KALAVO subsp. nov.

Shell subcylindrical, dorsum has greenish gray undershade, with numerous brown specks all over, and random dark brown patch near the apex (in some specimens the brown specks form lines along the length of the dorsum, and there is no dark brown patch); axis depressed; margins, extremities, and base plain buff colour (some specimens have dark brown spots on upper side of anterior extremity); inner wall of dorsum purple; base convex; aperture wide, and constricted towards labial anterior outlet, columella side of aperture raised above level of opposite side; teeth diminished, columella teeth becoming obsolete, short, and more prominent across shallow fossula. Animal gray, mantle greeny gray with whitish flecks, filaments gray and yellow, siphon gray with yellow fringe, tentacles orange.

Habitat, on rocks and broken coral on both shore and outer reefs; larger specimens usually on outer reefs.

Length 19–30 mm., width 10–16 mm., height 7–12 mm.

Type in South Australian Museum, Reg. No. D.14159.

Teeth (holotype, 30 mm. in length), Labial 13; Columella 13.

Loc. Numerous specimens taken at Suva (type loc.) and Nadroga; other known localities, common throughout Fiji.

The Schilders (1939) list *errones coerulescens* from the Pacific regions, but the true *errones* has red lips, which does not obtain in the Fijian species. We have, therefore, adopted the name *nimisserans* used by Iredale (1939), adding the subspecific name *kalavo*, Fijian for mouse, for the Fijian species.

ERRONEA NIMISSERANS VIVILI subsp. nov.

This shell is related to *nimisserans kalavo*, uniformly smaller, and of a much lighter shade; the dorsum is of a light bluish gray undershading, with numerous light brown specks all over, the base is ivory white, otherwise characteristics are similar.

Length 18–22 mm., width 9–12 mm., height 7–9 mm.

Type in South Australian Museum, Reg. No. D.14160.

Teeth (holotype, 19 mm. in length), Labial 11; Columella 13.

Loc. Suva (type loc.).

The name *vivili*, Fijian for small sea shells, is given to distinguish this subspecies.

ERRONEA CAURICA THEMA Iredale 1939.

Shell subcylindrical; dorsum faintly zoned in three darker and two lighter bands, apex of dorsum level for two-thirds of length, and falling precipitately to sunken axis, more obliquely to anterior extremity, multitudinous brown specks all over, tending to agglomerate in places, cream undershading beneath these specks; margins heavily calloused especially on right side, which is unevenly ridged; margins, extremities and base coloured dark cream, large dark brown spots regularly placed on right margin, smaller random spots on left margin, dark brown patches on upper side of anterior extremity, and over axis; extremities produced; inner wall of dorsum light violet; base depressed at centre; aperture wide especially at anterior outlet, turns left towards posterior outlet; teeth coarse, widely placed, with orange colouring between, produced half way across base. Animal not observed.

Habitat, on rocks and broken coral on inner reefs.

Length 25–50 mm., width 14–26 mm., height 10–18 mm.

Teeth (for specimen 50 mm. in length). Labial 16; Columella 17.

Loc. New Caledonia (type loc.), Beqa, Kadavu, Nadroga: twenty specimens taken at Suva and Ba.

OVATIPSA Iredale 1931.*OVATIPSA CHINENSIS* Gmelin 1791.

Specimens in collection of Mr. S. Levy, Suva.

Shell ovate; dorsum light brown, with numerous creamy gray lacunae frequently agglomerate; margins and extremities calloused, cream in colour with many violet spots; inner wall of dorsum gray; base convex, labial side raised above level of opposite side; aperture wide, teeth coarse with orange interstices, sulcus wide and shallow, fossula slightly concave, both denticulate. Animal not observed.

Loc. China (type loc.), Amboina, New South Wales, Queensland, New Guinea. Steadman did not take a specimen, but Mr. Levy has obtained several specimens from Fijian natives at Kadavu. Another specimen obtained at Levuka by Commander W. Burrows, R.N., was seen.

Subfamily TALPARIINAE.

TALPARIA Troschel 1863.*TALPARIA TALPA SATURATA* Dantzenberg 1903.

Shell elongate; dorsum fawn, with two darker brown transverse shadings forming somewhat indefinite zonal bands, extremities, margins, and base glistening chocolate brown, anterior extremity and labial posterior extremity produced; inner wall of dorsum white; base convex, aperture almost straight, teeth fine, chocolate with white interstices, continued to edge of extremities, last member at columella anterior outlet massive, anterior outer extremity declivous, fossula wide, white, concave, and denticulate with pronounced bulge above. Animal dark brown, mantle brown with small rough protuberances flecked in lighter shades, siphon and tentacles dark brown.

Habitat, on rocks inside main reef.

Length 53–85 mm., width 27–43 mm., height 24–38 mm.

Teeth (for specimen 85 mm. in length). Labial 49; Columella 48.

Loc. Central Pacific (type loc.), moderately frequent throughout Fiji; forty specimens taken at Suva and Nadroga.

ARESTORIDES Iredale 1930.

ARESTORIDES ARGUS VENTRICOSA Gray 1824.

Shell elongate; dorsum depressed, with light fawny gray colouring upon which are four dark zonal bands, and numerous brown rings of varying sizes all over and continued well down on margins; anterior extremity produced and acuminate, labial posterior extremity produced beyond length of opposite side; inner wall of dorsum light gray; base convex, coloured darker fawn, with two dark brown smudges on each side of aperture; aperture wide and obliquely constricted at anterior labial outlet, teeth ridges dark brown, not produced across base; sulcus shallow, fossula wide and concave, teeth continued strongly right across both sulcus and fossula, last member on anterior columella side massive. Animal not observed.

Habitat, on rocks inside main reef.

Length 62-86 mm., width 34-48 mm., height 28-37 mm.

Teeth (for specimen 86 mm. in length), Labial 35; Columella 36.

Loc. Central Pacific (type loc.), other localities moderately frequent throughout Fiji; twenty specimens taken at Suva and Nadroga.

BASILITRONA Iredale 1930.

BASILITRONA ISABELLA CAVIA subsp. nov.

Shell cylindrical; dorsum fawnish-gray (in some bluish-gray), with three very faint darker zonal bands and black broken thin longitudinal lines; at each extremity red markings in centre of which are dark brown spots; base convex, pearly white, with small depression in centre on each side of aperture; aperture narrow with slight turn left towards posterior outlet; teeth fine, not produced across base; sulcus wide, fossula concave, heavily denticulate on inner margin; red markings at extremities continued well within both outlets; anterior labial outlet slightly declivous. Animal black, mantle black with rough surface, no filaments, siphon and tentacles dark gray.

Habitat, inside main reef.

Length 19-36 mm., width 10-22 mm., height 9-19 mm.

Type in South Australian Museum, Reg. No. D.14161.

Teeth (holotype, 34 mm. in length), Labial 33; Columella 27.

Loc. Numerous specimens taken at Suva (type loc.) and Nadroga; fairly common throughout Fiji.

The Schilders (1939) list *isabella lekalekana* Ladd (1934) from the Central Pacific, but the description does not fit the Fijian specimens. We have therefore introduced the name *cavia*, the Zoological name for guinea-pig, which they seem to resemble.

CHELYCYPRAEA Schilder 1927.

CHELYCYPRAEA TESTUDINARIA TESTUDINOSA Perry 1811.

Shell cylindrical; dorsum depressed with pinky gray undercolouring, upon which are larger dark brown and purple shadings, with numerous dark brown spots, and a curious dusting effect, as though the whole dorsum has been thinly sprinkled with finest white sand; extremities produced and heavily calloused; inner wall of dorsum white; base convex, light brown, depressed in centre; aperture wide, white, and nearly straight, outer lip declivous at anterior outlet, teeth not produced across base, becoming obsolete towards posterior end of columella; sulcus wide, shallow, and slightly denticulate; fossula deeply concave and denticulate,

deep depression at anterior end of columella, which is produced acuminate. Animal not observed.

Habitat, on rocks inside main reef.

Length 81–118 mm., width 40–58 mm., height 30–47 mm.

Teeth (for specimen 118 mm. in length), Labial 46; Columella 46.

Loc. Twenty specimens taken at Suva and Nadroga; Samoa (type loc.) (West Indies, Perry, in error); fairly common throughout Fiji.

Subfamily CYPRAEINAE.

ARABICA Jousseaume 1884.

ARABICA ARABICA RETICULATA Martyn 1784.

Shell ovate; dorsum dark brown, with numerous confused creamy gray lacunae, and creamy gray longitudinal lines, dorsal line indicated by gray gap in dorsal pattern; margins heavily calloused, with lateral torus at extremities, numerous agglomerate black spots on bluish gray; inner wall of dorsum light purple; base depressed, shaded from bluish-gray at margins to purplish-cream at aperture; anterior extremity acuminate; aperture turns slightly left at posterior outlet, outer lip declivous at anterior outlet; teeth dark brown with cream interstices, not produced across base; sulcus wide and shallow, fossula wide and concave, both denticulate. Animal dark gray, mantle mottled dark gray, with numerous tiny black filaments, siphon and tentacles dark gray.

Habitat, on inner reefs.

Length 43–65 mm., width 26–43 mm., height 20–33 mm.

Teeth (for specimen 65 mm. in length), Labial 26; Columella 26.

Loc. Friendly Islands (type loc.); numerous specimens taken at Suva and Nadroga; fairly common throughout Fiji.

Aribica maculifera Schilder (1932) is a direct synonym.

ARABICA EGLANTINA MOMOKITI subsp. nov.

Shell elongate ovate; dorsum has a reticulated pattern of numerous brown lines on gray undercolouring, and numerous confused gray lacunae, dorsal line indicated by wide gray break in dorsal pattern; margins rounded, pinkish gray with a number of purplish brown spots below edge of dorsal pattern; inner wall of dorsum light purple; base convex, pinkish gray, anterior extremity acuminate and declivous on outer lip; aperture turns slightly left at posterior outlet; teeth dark brown, with pinkish gray interstices, not produced across base, sulcus wide and very shallow, obsolete denticulate, fossula concave wide, white and denticulate. Animal dark gray, mantle covered with mottled black nodules, siphon and tentacles dark gray.

Habitat, on inner reefs.

Length 51–70 mm., width 30–40 mm., height 24–33 mm.

Type in South Australian Museum, Reg. No. D.14162.

Teeth (holotype, 58 mm. in length), Labial 29; Columella 32.

Loc. Numerous specimens taken at Suva (type loc.) and Nadroga; fairly common throughout Fiji.

The Schilders (1939) list the Melanesian *eglantina eglantina* DuRoi (1833) for Fiji, but the specimens taken by Steadman do not agree in all points with the description given, and we have, therefore, given the subspecific name *momokiti*, Fijian for rounded, to distinguish the Fijian shell.

ARABICA INTERMEDIA Gray 1824.

Shell elongate ovate; similar to *eglantina momokiti* in shape, but the dorsal pattern is of a general bluish colour, with confused brown zigzag markings along whole length; fewer spots on margins; teeth very light brown instead of dark.

Habitat, on inner reefs.

Length 48–67 mm., width 28–40 mm., height 23–32 mm.

Teeth (for specimen 67 mm. in length), Labial 33; Columella 33.

Loc. Melanesia (type loc.), Kadavu, Levuka; fourteen specimens taken at Suva and Nadroga.

ARABICA DEPRESSA Gray 1824.

Shell ovate; dorsum has reticulated pattern of small round lacunae, interlaced with brown on a bluish gray and light fawn undercolouring; this pattern continued to half way from apex to margins, dorsal line gray; inner wall of dorsum gray; margins heavily calloused, with torus at extremities, and bent up in centre on each side, coloured gray, with numerous purplish brown spots more or less confused; base ivory and depressed, anterior extremity acuminate on both sides, aperture turns left at posterior outlet, slightly declivous at outer anterior lip; teeth dark brown, heavy, with ivory interstices, produced about a third of the way across base; sulcus wide and shallow, obsoletely denticulate, fossula concave, white and denticulate. Animal not observed.

Habitat, on inner reefs.

Length 40–48 mm., width 28–34 mm., height 22–24 mm.

Teeth (for specimen 48 mm. in length), Labial 20; Columella 19.

Loc. Central Pacific (type loc.); four specimens from Macuata, Vanau Levu (the northern island of the Fiji Group). This shell appears in the northern islands of Fiji but we have not known of it being taken in the central or southern Fiji Islands.

ARABICA SCURRA VONO subsp. nov.

Shell cylindrical; dorsum has a mosaic pattern composed of numerous bluish gray lacunae interlaced with light brown lines; margins and base pinkish brown, with many purplish brown spots; extremities produced, anterior extremity acuminate on both sides, calloused axis protruding at posterior extremity; inner wall of dorsum light purple; aperture narrower at posterior outlet, nearly straight, declivous at outer anterior lip; teeth fine, dark brown, with pinkish brown interstices, not produced across base; fossula white, deeply concave and faintly denticulate. Animal not observed.

Habitat, on inner reefs.

Length 31–48 mm., width 28–31 mm., height 25–27 mm.

Type in South Australian Museum, Reg. No. D.14163.

Teeth (holotype, 40 mm. in length), Labial 37; Columella 36.

Loc. Kadavu, Levuka; twelve specimens taken at Suva (type loc.) and Nadroga.

The Schilders (1939) list *scurra retifera* Menke (1829) for East Polynesian shells of this species, but Iredale points out that *retifera* does not belong to that region. We have, therefore, adopted the subspecific name *vono*, Fijian for "inlaid with pearl", for distinguishing the Fijian shells.

MAURITIA Troschel 1863.

MAURITIA MAURITIANA CALXEQUINA Melvill-Standen 1899.

Shell ovate with flattened base; dorsum humped, dark brown, with numerous spots, some of which are pinkish grey, and others deep cream; most specimens have an irregular pinkish gray dorsal line on right side, dorsal pattern ends with plain

dark brown of margin colouring about two-thirds of distance from apex to lateral edge; margins and extremities heavily calloused, chocolate coloured, in some specimens almost black; anterior extremity greatly produced and acuminate, axis completely covered; inner wall of dorsum purple; base flattened, dark chocolate or black; aperture wide, declivous at outer anterior outlet, where both edges of acuminate extremity turn downwards, sharp turn to left at posterior outlet; teeth coarse, chocolate coloured, with gray interstices, produced only slightly across base; sulcus wide and shallow, fossula cream coloured and slightly concave, both denticulate. Animal not observed.

Habitat, on main reefs.

Length 58–103 mm., width 36–69 mm., height 28–50 mm.

Teeth (for specimen 100 mm. in length), Labial 25; Columella 27.

Loc. Central Pacific (type loc.); other localities, fairly common throughout Fiji; twenty specimens taken at Suva and Nadroga.

LEPORICYPRAEA Iredale 1930.

LEPORICYPRAEA MAPPA REWA subsp. nov.

Shell inflated ovate; dorsum coloured light brown, with somewhat confused lines upon a creamy gray undersurface, and several spots becoming obsolete, and the very distinctive creamy gray dorsal marking that resembles the strange course of a river; inner wall of dorsum very light gray; margins round and somewhat calloused, creamy coloured with purple brown spots; extremities acuminate and purplish gray; base convex, heavily calloused, purplish gray; aperture declivous at labial anterior outlet, turning left at posterior outlet, outer posterior lip extended beyond opposite side; teeth bright orange, not produced across base; sulcus wide and shallow, fossula concave, both denticulate. Animal not observed.

Habitat, on rocks within main reef.

Length 61–73 mm., width 38–44 mm., height 35–42 mm.

Type in South Australian Museum, Reg. No. D.14166.

Teeth (holotype, 60 mm. in length), Labial 26; Columella 27.

Loc. Moderately frequent throughout Fiji; forty specimens taken at Suva (type loc.) and Nadroga.

The Schilders (1939) list *mappa viridis* Kenyon (1902), for the Pacific region, but the description does not fit the Fijian specimens. We have, therefore, given the name *rewa*, a well-known district in Fiji, the coast of which is famous for the variety of shells found there, to distinguish the Fijian shell.

CALLISTOCYPRAEA Schilder 1927.

CALLISTOCYPRAEA AURANTIUM TURANGA subsp. nov.

Shell ovate; dorsum inflated, glistening aureate uniformly over whole surface and well down over margins; base and extremities pearly cream; axis has two semicircular grooves, milky white on upper side, and orange between; aperture wide, deeply grooved at both outlets, slightly declivous at outer anterior outlet, turning left at posterior outlet; inner wall of dorsum white; base convex, deep cream in colour; teeth orange, with deeper shade on interstices, not produced across base; sulcus wide and shallow, fossula very wide and concave, both heavily denticulate, large terminal ridge at anterior columella outlet. Animal pinkish gray, but further details not observed as it was withdrawn.

Habitat, Fijian natives state that this cowry lives in deep water in practically inaccessible positions on the outside ledges of the main reef, and is mainly taken on top of the main reef after having been thrown up during a heavy storm.

Length 90–110 mm., width 57–70 mm., height 46–60 mm.

Type in South Australian Museum, Reg. No. D.14165.

Teeth (holotype selected from South Australian Museum Collection, 106 mm. in length), Labial 36; Columella 36.

Loc. Twelve specimens obtained from Fijian natives at Nadroga (type loc.); other localities, rarely taken throughout Fiji islands, but Nadroga seems to be the main locality.

This very beautiful shell is found in many parts of the Pacific, but to distinguish the Fijian specimens we have added the subspecific name *turanga*, Fijian for chief, as it was the prerogative of Fijian chiefs to wear this shell as an ornament tied on the neck.

LYNCINA Troschel 1863.

LYNCINA LYNX PACIFICA subsp. nov.

Shell elongate ovate; dorsum colouring bluish (varies from mottled brown to bluish), several black spots of varying sizes erratically placed, orange dorsal line; margins rotund; anterior extremity produced; inner wall of dorsum light gray; base flattened, white; aperture narrow, slight turn left at posterior outlet; teeth white with interstices deep orange; shallow sulcus and concave fossula denticulate. Animal dark gray, mantle has whitish branching filaments, siphon and tentacles gray.

Habitat, on inner reefs.

Length 30–50 mm., width 18–30 mm., height 17–27 mm.

Type in South Australian Museum, Reg. No. D.14166.

Teeth (holotype, 50 mm. in length), Labial 24; Columella 22.

Loc. Common throughout Fiji; numerous specimens taken at Suva (type loc.) and Nadroga.

The Schilders (1939) list *lynx caledonica* Crosse (1869) for Fiji, but the New Caledonian specimens are mostly abnormal crassate shells unlike those from other regions. To distinguish the Fijian specimens we have added the subspecific name *pacifica*.

PONDA Jousseaume 1884.

PONDA CARNEOLA PROPINQUA Garrett 1879.

Shell elongate ovate; dorsum reddish fawn, with four darker shaded zonal bands; margins and extremities dark fawn, minutely speckled; base fawn, with bulge in columella centre; aperture wide, very slight turn to left at posterior outlet; inner wall of dorsum white; teeth deep violet; wide sulcus and concave fossula, both heavily denticulate; teeth not produced across base; anterior extremity has tendency to be nodulose. Animal creamy gray, mantle mottled light brown and gray with small black and gray markings, siphon and tentacles black.

Habitat, inside main reef.

Length 24–55 mm., width 14–34 mm., height 12–30 mm.

Teeth (for specimen 53 mm. in length), Labial 26; Columella 26.

Loc. Moderately frequent throughout Fiji; Paumotu Is. (type loc.); numerous specimens from Suva and Nadroga.

The Schilders (1939) list *leviathan* Schilder-Schilder (1937), apparently a giant *carneola*, from Fiji among other regions, but whilst *carneola* in Fiji is taken up to 55 mm. in length, the specimens of varying sizes seem uniform, and hardly warrant the division into two species.

PONDA SCHILDERORUM Iredale 1939.

Shell ovate; dorsum light brown, with five transverse gray zonal bands; margins speckled fawny, turned up at centre; base convex, shaded from fawn at margins to white on either side of aperture; inner wall of dorsum light gray; aperture slight turn to left at posterior outlet, slightly declivous at outer anterior extremity; teeth fine, white, not produced across base; wide sulcus and concave fossula heavily denticulate. Animal not observed.

Habitat, on inner reefs.

Length 28–32 mm., width 20–24 mm., height 15–18 mm.

Teeth (for specimen 32 mm. in length), Labial 25; Columella 25.

Loc. Four specimens taken at Lomaloma and Lakeba; Annua Is., Paumotu Islands (type loc.); this species seems to be found only in the northern and north-eastern islands of Fiji. We have not known it taken in the southern or western parts of the Group.

P. schilderorum was introduced as a new name for *arenosa*.

PONDA VENTRICULUS TOPEE subsp. nov.

Shell ovate, shaped like an Indian topee; dorsum has irregular bluish white strip along centre, with alternate lateral shadings of brown, chocolate, and at margins purplish fawn; margins have numerous whitish gossamer lines transversely across sides, margins and extremities calloused; inner wall of dorsum light gray; base depressed, coloured dark cream at margins to light cream at aperture; teeth heavy, oblique at posterior outlet, where aperture turns slightly left; shallow sulcus and concave fossula heavily denticulate. Animal not observed.

Habitat, inside main reef.

Length 35–50 mm., width 24–34 mm., height 17–24 mm.

Type in South Australian Museum, Reg. No. D.14167.

Teeth (holotype, 35 mm. in length), Labial 19; Columella 19.

Loc. Three specimens taken at Kadavu (type loc.); other localities uncertain. One or two specimens taken in Fiji have been seen in private collections there, but the species appears to be rare.

The Fijian specimens of this shell, whilst having the very distinctive and striking dorsal pattern and colouring of *ventriculus*, are on the average smaller, and the dorsal lighter colourings are wider than specimens from regions further west. We have, therefore, introduced the new subspecific name, *topee*, from their resemblance in shape to the Indian topee, or sun helmet.

MYSTAPONDA Iredale 1930.

MYSTAPONDA VITELLUS POLYNESIAE Schilder 1938.

Shell pyriform; dorsum coloured light brown, with several gray spots of varying sizes, darker brown shading, with faint gossamer lines, from half way to margins, spots continued faintly right across the rounded margins; inner wall of dorsum gray; extremities calloused; base convex, coloured fawny to pinkish cream, gossamer lines continued faintly across base; aperture wide, slight turn left at posterior outlet; teeth coarse, not produced across base; shallow sulcus and concave fossula, both heavily denticulate. Animal greenish gray, mantle has long slender branching filaments of mottled brown and gray, siphon light brown, tentacles darker brown.

Habitat, inside main reefs.

Length 34–77 mm., width 23–46 mm., height 18–40 mm.

Teeth (for specimen 55 mm. in length), Labial 22; Columella 23.

Loc. Fiji (type loc.); numerous specimens from Suva and Nadroga; fairly common throughout Fiji.

CYPRAEA Linne 1758.

CYPRAEA TIGRIS VOLAI subsp. nov.

Shell pyriform, inflated; colouring of dorsum varies considerably, holotype has numerous more or less agglomerate black spots on pinkish gray undersurface and a bright orange dorsal line (sometimes the undersurface is of bluish gray, in other specimens the black spots are so very numerous as to give the appearance of almost a black shell, others again have a light brown undersurface with dark spots); margins rotund, swollen, and white with fewer black spots; inner wall of dorsum gray; extremities calloused; base white, convex; aperture wide, turns left at posterior outlet; teeth coarse, white, inclined to be tuberculose on posterior end of columella; fossula wide and concave, obsoletely denticulate. Animal gray with mottled gray mantle.

Habitat, on both inner and outer reefs.

Length 72–110 mm., width 46–75 mm., height 38–60 mm.

Type in South Australian Museum, Reg. No. D.14168.

Teeth (holotype, 80 mm. in length), Labial 22; Columella 23.

Loc. Numerous specimens taken at Suva (type loc.) and Nadroga; other localities common throughout Fiji.

There appear to be two species of *tigris* in Fiji; the one is darker in colour, and has a gray inner dorsal wall, and a bright orange dorsal line, which distinguishes it from the other type described below. We have given the new name *volai*, Fijian for spotted, for this species.

CYPRAEA TIGRIS AMBOOLEE subsp. nov.

Shell pyriform, inflated; dorsum white, with both small and large purplish black spots, colourless dorsal groove (some specimens have a coating of bright yellow all over dorsum, others have yellow shade along summit of dorsum); margins rotund, swollen, and spotted; inner wall of dorsum white; aperture wide, turns left at posterior outlet; extremities calloused; base white, convex; teeth coarse, white; fossula wide and concave, denticulate. Animal has no features observed to distinguish it from *volai*, described above.

Habitat, both on inner and outer reefs.

Length 72–103 mm., width 47–67 mm., height 35–55 mm.

Type in South Australian Museum, Reg. No. D.14169.

Teeth (holotype, 76 mm. in length), Labial 23, Columella 19.

Loc. Numerous specimens taken at Suva (type loc.), Nadroga and Nairai; other localities, taken mostly in eastern parts of Fiji.

This species is lighter in colour, has white inner dorsal wall, and colourless dorsal groove, instead of orange dorsal line. We have given this species the name *amboolee* Fijian (spelt *buli* in Fijian) the native name for this shell.

Subfamily PSEUDOCYPRAEA.

CYPRAEOVULA ADAMSONI Gray 1832.

Mr. T. Dranga of Hawaii, who spent a month collecting specimens of shells at Beqa Island in Fiji in 1938, said that he had taken one specimen of *C. adamsoni* there, but we did not see the specimen, and have not heard of anyone else taking it in Fiji. We have included this species in this list of Fijian cowries on Mr. Dranga's testimony.

CLASSIFICATION OF FIJI COWRIES.

FAMILY CYPRAEIDAE.

Subfamily NARIINAE.

PUSTULARIA.

Subgenus ANNEPONA	MARGARITA THEEVA	subsp. nov.
Subgenus PUSTULARIA	CICERCULA JENNISONI	subsp. nov.
	BISTRINOTATA SUBLAEVIS	Schilder 1939.
	TRICORNIS VULAVULA	subsp. nov.
	GLOBULUS SPHAERIDIUM	Schilder 1939.

Subfamily STAPHYLAEINAE.

STAPHYLAEA	STAPHYLAEA CONSOBRINA	Garrett 1879.
	NUKULAU	sp. nov.
PURPEROSA	PURPEROSA RUVAYA	subsp. nov.
NUCLEARIA	NUCLEUS GEMMOSA	Perry 1811.

Subfamily EROSARIINAE.

EROSARIA.

Subgenus RAVITRONA	CAPUTSERPENTIS ARGENTATA	Dautzenberg and Bouge 1933.
Subgenus EROSARIA	EROSA CHLORIZANS	Melville 1888.
	PORARIA SCARABAEUS	Bory 1827.
	HELVOLA CALLISTA	Shaw 1909.
	HELENE NASESE	subsp. nov.
	EBURNEA	Barnes 1828.

MONETARIA.

Subgenus ORNAMENTARIA	ANNULUS NOUMEENSIS	Bernardi 1861.
	ANNULUS DRANGA	Iredale 1939.
Subgenus MONETARIA	MONETA ENDUA	subsp. nov.
	MONETA ERUA	subsp. nov.
	MONETA ETOLU	subsp. nov.

Subfamily ERRONEINAE.

CRIBRARIA	CRIBRARIA NORTHI	subsp. nov.
BISTOLIDA	STOLIDA THAKAU	subsp. nov.
	FLUCTUANS NANDRONGA	subsp. nov.
TALOSTOLIDA	SUTTERES VAVA	subsp. nov.
PAULONARIA	MINORIDENS SUVAENSIS	subsp. nov.
	MICRODON GRANUM	Schilder 1938.
EVANARIA	ASELLUS KAWAKAWA	subsp. nov.
	HIRUNDO KOROLEVU	subsp. nov.
	URSELLUS VITIENSIS	subsp. nov.
	PUNCTATA TRIZONATA	Sowerby 1870.
PALMADUSTA	CLANDESTINA CANDIDA	Pease 1865.
	LUTEA YALOKA	subsp. nov.

SOLVADUSTA	SUBVIRIDIS KESATA	subsp. nov.
MELICERONA	MELVILLI VATU	subsp. nov.
BLASICRURA	RHINOCEROS VIVIA	subsp. nov.
	QUADRIMACULATA GARRETTI	Schilder 1939.
PALANGEROSA	CYLINDRICA WANGGA	subsp. nov.
ERRONEA	NIMISSERANS KALAVO	subsp. nov.
	NIMISSERANS VIVILI	subsp. nov.
	CAURICA THEMA	Iredale 1939.
OVATIPSA	CHINENSIS	Gmelin 1791.

Subfamily TALPARIINAE.

TALPARIA	TALPA SATURATA	Dautzenberg 1903.
ARESTORIDES	ARGUS VENTRICOSA	Gray 1824.
BASILITRONA	ISABELLA CAVIA	subsp. nov.
CHELYCYPRAEA	TESTUDINARIA TESTUDINOSA	Perry 1811.

Subfamily CYPRAEINAE.

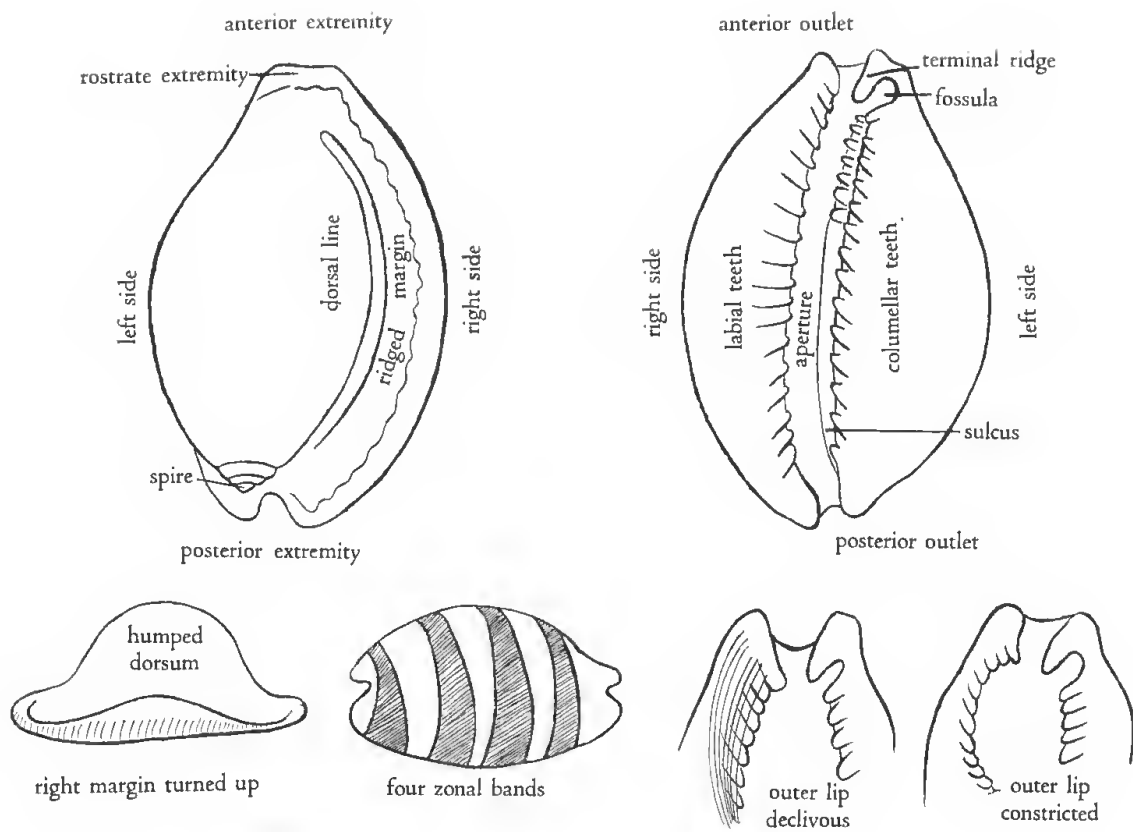
ARABICA	ARABICA RETICULATA	Martyn 1784.
	EGLANTINA MOMOKITI	subsp. nov.
	INTERMEDIA	Gray 1824.
	DEPRESSA	Gray 1824.
	SCURRA VONO	subsp. nov.
MAURITIA	MAURITIANA CALXEQUINA	Melville-Standen 1899.
LEPORICYPRAEA	MAPPA REWA	subsp. nov.
CALLISTOCYPRAEA	AURANTIUM TURANGA	subsp. nov.
LYNCINA	LYNX PACIFICA	subsp. nov.
PONDA	CARNEOLA PROPINQUA	Garrett 1879.
	SCHILDERORUM	Iredale 1939.
	VENTRICULUS TOPEE	subsp. nov.
	VITELLUS POLYNESIAE	Schilder 1938.
CYPRAEA	TIGRIS VOLAI	subsp. nov.
	TIGRIS AMBOOLEE	subsp. nov.

Subfamily PSEUDOCYPRAEA.

CYPRAEOVULA	ADAMSONI	Gray 1832.
-------------	----------	------------

INDEX TO GENERA, SUBGENERA, SPECIES AND SUBSPECIES OF FIJIAN COWRIES

	Page		Page		Page
adamsoni	309, 332	globulus	311	Pseudocypraea	332
amboolee	332	goodalli	309	punctata	321
Annepona	310	granum	320	Purperosa	312
annulus	316	helenae	315	Pustularia	310, 311
Arabica	327, 328	helvola	314	quadrifasciata	323
arabica	327	hirundo	320	Ravitrona	313
Arestorides	326	intermedia	328	reticulata	327
argentata	313	Ipsa	309	rewa	329
argus	326	irrotata	309	rhinoceros	323
asellus	320	isabella	326	ruvaya	312
aurantium	309, 329	jennisoni	310, 311	saturata	325
Basilitrona	326	kalavo	324	scarabeus	314
Bistolida	318	kawakawa	320	schilderorum	331
bistrinotata	310, 311	kesata	322	seurra	328
Blasierura	323	korolevu	320	Solvadusta	322
caledonica	330	Leporicypraea	329	sphaeridium	311
callista	314	leviathan	309	Staphylaea	312
Callistocypraea	309, 329	lutea	322	stolida	318
calxequina	328	Lyncina	309, 330	subfasciata	309, 319
candida	321	lynx	330	sublaevis	310, 311
caputserpentis	313	maculifera	327	subteres	319
carneola	330	mappa	327	subviridis	322
caurica	325	margarita	310	suvaensis	319
cavia	326	mariae	309, 310	Talostolida	319
Chelyocypraea	326	Mauritia	338	talpa	325
childreni	309	mauritiana	328	Talparia	325
chinensis	309, 325	Melicerona	322	teres	309
chlorizans	314	melvilli	322, 323	tessalata	310
cicereula	310	microdon	320	testudinaria	326
clandestina	321	minoridens	319	testudinosa	326
concolorata	312	momokiti	327	thakan	318
crenata	309	moneta	317	theeva	310
Cribraria	309, 318	Monetaria	316, 317	thema	325
cribraria	318	morbillosa	309	tigris	332
cruenta	309	Mystaponda	331	topee	331
cyfndrica	323, 324	nandronga	318, 319	tricornis	311
Cypraea	332	Narla	309	trizonata	321
Cypraeovula	309, 332	nasese	315	turanga	309, 329, 330
depressa	328	nimisserans	324	ursellus	321
dranga	316	northi	318	variolaria	309
eburnea	315	noumeensis	316	vatu	322, 323
eglantina	327	Nuclearia	313	vava	319
endua	317	nucleus	313	velesia	323
Epona	309	nukulan	312	ventricosa	326
erosa	314	Ornamentaria	316	ventriculus	331
Erosaria	313, 314, 315	Ovatipsa	309, 325	vitellus	331
Erronea	324, 325	paefica	330	vitiensis	321
erua	317	Palangerosa	323	vivia	323
etolu	317	pallidula	323	vivili	324
Evanaria	320, 321	Palmadusta	321, 322	volai	332
felina	323	Paulonaria	319, 320	vono	328
fluctuans	318	polynesiae	331	vulavula	311
fuscomaculata	309	Ponda	330, 331	wangga	323, 324
garrotti	323	poraria	314	yaloka	322
gemmosa	313	propinqua	330		



Terminology of the Cowry Shell.